<u>**AMENDMENTS TO THE CLAIMS**</u>

Please amend claims 1, 39, 59, 78, 101, 102, 114, 133 and 134; cancel claims 148 and 149; and add claims 159-162 as set forth below:

1.   (Currently Amended) A system for allocating bandwidth on a network comprising:

one or more network nodes ~~wherein said one or more network nodes further comprises a first processing element,~~ comprising <u>a data interface,</u> a compression module, a first local network interface, and a first bandwidth adjustment module, wherein <u>the data interface is adapted to receive data streams from two or more sources,</u> said compression module ~~further comprises~~ <u>adapted to control</u> a plurality of compression parameters <u>associated with compressing the received data streams for transmission over a local network having changing network conditions, the first local network interface adapted to establish communication over the local network,</u> ~~and said first processing element controls~~ said <u>first</u> bandwidth adjustment module <u>adapted to allocate bandwidth of the local network to each of the received data streams proportional to a network load compensation factor representing changes in available bandwidth within the local network,</u> ~~said first local network interface, and said compression module~~; <u>and</u>

~~a data interface connected to said one or more network nodes;~~

a master node ~~wherein said master node further comprises a second processing element,~~ comprising a second local network interface <u>adapted to establish communication with the one or more network nodes over the local network,</u> and a second bandwidth adjustment module <u>adapted to determine the plurality of compression parameters for the</u>

compression module, ~~and wherein said second processing element controls said second network interface and said second bandwidth adjustment module;~~

~~wherein said one or more network nodes and said master node communicate using said first local network interface and said second network interface, wherein said first local network interface and said second local network interface communicate over a local network having changing network conditions; and~~

~~wherein said second bandwidth adjustment module dynamically changes at least one of said compression parameters in said first bandwidth adjustment module based on wherein said changing network conditions are detected by said second local network interface, and wherein said changing network conditions affect network bandwidth~~.

2.-23.   (Canceled).

24.   (Previously Presented)   A system for allocating bandwidth on a network as recited in claim 1 further comprising an external network connected to said master node.

25.   (Previously Presented)   A system for allocating bandwidth on a network as recited in claim 24 further comprising a remote monitoring station connected to said external network wherein said remote monitor station receives data from said data interface.

26.   (Previously Presented) A system for allocating bandwidth on a network as recited in claim 24 wherein said external network is a network selected from the group consisting of the Internet, a Local Area Network (LAN), and a Wide Area Network (WAN).

27.-38. (Canceled).

39.   (Currently Amended) A system for allocating bandwidth on a network comprising:

a first network node ~~wherein said first network node further comprises a first processing element,~~ comprising a data interface, a first bandwidth adjustment module, a first local network interface, and a compression module, wherein the data interface is adapted to receive data streams via multiple connections to sources, said compression module ~~contains~~ adapted to control a plurality of compression parameters associated with compressing of the received data streams for transmission over a local network having changing network conditions, the first local network interface adapted to establish communication over the local network, ~~and wherein said first processing element controls~~ said first bandwidth adjustment module adapted to allocate predetermined bandwidth of the local network to a data stream received via a first connection of the multiple connections wherein the first connection has capacity above a predetermined threshold, the first adjustment module further adapted to allocate bandwidth remaining after allocating the predetermined bandwidth to one or more data streams received via second connections of the multiple connections of the multiple connections wherein each of the second connections has capacity not above the predetermined threshold~~, said first local network interface, and said compression module~~; and

~~a data interface connected to said first network node;~~

a second network node ~~configurable as a master node, a slave master node, and a network node, wherein said second network node further comprises a second processing element,~~ comprising a second bandwidth adjustment module adapted to determine the plurality of compression parameters for the compression module, and a second local network interface adapted to establish communication with the one or more network nodes over the

~~local network,~~ ~~and wherein said second processing element controls said second local~~
~~network interface and said second bandwidth adjustment module;~~

~~a third network node, wherein said third network node further comprises a third~~
~~processing element, a third bandwidth adjustment module, a third local network interface, a~~
~~third compression module wherein said third compression module contains a plurality of~~
~~compression parameters, and wherein said third processing element controls said third~~
~~bandwidth adjustment module, said third local network interface and said third compression~~
~~module;~~

~~wherein said first network node, said second network node and said third network~~
~~node electronically communicate using said first local network interface, said second local~~
~~network interface node and said third local network interface; and~~

~~wherein said second bandwidth adjustment module dynamically changes at least one~~
~~of said compression parameters in said first bandwidth adjustment module or said third~~
~~bandwidth adjustment module based on network conditions on the local network wherein~~
~~said network conditions are detected by said second local network interface.~~

40.-58. (Canceled).

59. (Currently Amended) A system for allocating bandwidth on a network as recited in claim 39 further comprising an external network connected to said first_or second~~,~~ ~~or third~~ network node.

60. (Previously Presented) A system for allocating bandwidth on a network as recited in claim 59 further comprising a remote monitor station connected to said external network wherein said remote monitor station receives data from said data interface.

61.   (Previously Presented)   A system for allocating bandwidth on a network as recited in claim 59 wherein said external network is a network selected from the group consisting of the Internet, a Local Area Network (LAN), and a Wide Area Network (WAN).

62.-77. (Canceled).

78.   (Currently Amended) A method for allocating bandwidth on a network comprising the steps of:

receiving two or more data streams from sources ~~on a data interface on~~ at a network node ~~which comprises a first bandwidth adjustment module, a first local network interface, and a compression module with a plurality of compression parameters~~;

sampling network conditions ~~from a second local network interface with a second bandwidth adjustment module in~~ of a local network between the network node and a master node, ~~wherein said first local network interface and said second local network interface communicate over a~~ the local network having changing network conditions;

determining a network load compensation factor representing changes in available bandwidth of the local network based on the sampled network conditions;

allocating bandwidth for transmission of the data streams over the local network in proportion to the network load compensation factor; and

sending the data streams from the network node to the master node using the allocated bandwidth

~~determining the bandwidth requirements for data received on said data interface based on said changing network conditions in said second bandwidth adjustment module, wherein said changing network conditions affect network bandwidth; and~~

~~notifying said first bandwidth adjustment module of said bandwidth requirements which causes said network node to change said compression parameters for said received data~~.

79.-100. (Canceled).

101.   (Currently Amended)   A method for allocating bandwidth on a network as recited in claim 78 further comprising ~~an external network connected to~~ said master node_ communicating with an external network.

102.   (Currently Amended)   A method for allocating bandwidth on a network as recited in claim 101 further comprising ~~a remote monitor station connected to~~ sending data stream of the two or more data streams to a remote monitor station via_ said external network, the local network and the master node ~~wherein said remote monitor station receives data from said data interface~~.

103.   (Previously Presented)   A method for allocating bandwidth on a network as recited in claim 101 wherein said external network is a network selected from the group consisting of the Internet, a Local Area Network (LAN), and a Wide Area Network (WAN).

104.-113. (Canceled).

114.   (Currently Amended) A method for allocating bandwidth on a network comprising:

receiving two or more_ data streams from sources via multiple connections to sources at ~~on a data interface on~~ a first network node ~~which comprises a first bandwidth adjustment module, a first local network interface, and a compression module with a plurality of compression parameters~~;

determining available bandwidth of a local network between the first network node and a second network node by sampling network conditions of the local network~~from a second local network interface with a second bandwidth adjustment module in a second network node, wherein said first local network interface and said second local network interface communicate over a network having changing network conditions;~~

allocating predetermined bandwidth of the local network to a first data stream received via a first connection of the multiple connections, the first connection having a capacity above a predetermined threshold;

allocating bandwidth remaining after allocating the predetermined bandwidth to one or more second data streams received via second connections of the multiple connections, each of the second connections having capacity not above the predetermined threshold; and

sending the first data stream to the second network node via the local network using the allocated bandwidth; and

sending the second data streams to the second network node via the local network using the remaining bandwidth

~~determining the bandwidth requirements for data received on said data interface based on said changing network conditions in said second bandwidth adjustment module, wherein said changing network conditions affect network bandwidth; and~~

~~notifying said first bandwidth adjustment module of said bandwidth requirements which causes said first network node to change said compression parameters for said received data.~~

115.-132. (Canceled).

133.   (Currently amended)   A method for allocating bandwidth on a network as recited in claim 114 further comprising ~~an external network connected to said master node~~ communicating with an external network by the second network node.

134.   (Currently Amended)   A method for allocating bandwidth on a network as recited in claim 133 further comprising ~~a remote monitor station connected to~~ sending data stream of the two or more data streams to a remote monitor station via said external network, the local network and the second network node ~~wherein said remote monitor station receives data from said data interface~~.

135.   (Previously Presented)   A method for allocating bandwidth on a network as recited in claim 133 wherein said external network is a network selected from the group consisting of the Internet, a Local Area Network (LAN), and a Wide Area Network (WAN).

136.-149. (Canceled).

150.   (Previously Presented)   The system of claim 39, further comprising:

a local device identifier; and

wherein responsive to the local device identifier prohibiting the second network node from operating as a master node, the second network node operates as a network node.

151.   (Previously Presented)   The system of claim 39, wherein the master node is configured to control bandwidth for one or more data sources on the local network.

152.   (Previously Presented)   The system of claim 39, wherein the first network node is configured to control bandwidth for one or more data sources connected to the first network node.

153. (Previously Presented) The system of claim 1 wherein the network is a power line network.

154. (Previously Presented) The method of claim 78 wherein the network is a power line network.

155. (Previously Presented) The method of claim 114 wherein the network is a power line network.

156. (Previously Presented) The system of claim 153, wherein one of the network conditions used by the second bandwidth adjustment module in changing the compression parameters comprises noise on the network from one or more devices connected to the power line network.

157. (Previously Presented) The method of claim 154, wherein one of the network conditions used to determine the bandwidth requirements comprises noise on the network from one or more devices connected to the power line network.

158. (Previously Presented) The method of claim 155, wherein one of the network conditions used to determine the bandwidth requirements comprises noise on the network from one or more devices connected to the power line network.

159. (New) The system of claim 1, wherein the first bandwidth adjustment module is further adapted to allocate predetermined bandwidth of the local network to a data stream received via a first connection of the multiple connections, the first connection having capacity above a predetermined threshold, the first adjustment module further adapted to allocate bandwidth remaining after allocating the predetermined bandwidth to one or more data streams received via second connections of the multiple connections, each of the second connections having capacity not above the predetermined threshold.

160.   (New) The system of claim 39, wherein the second network node is configurable as a master node or a network node, the master node controlling bandwidth of the local network for all sources on the local network, the network node controlling bandwidth of the local network for sources connected to the network node but not other sources.

161.   (New) The method of claim 78, further comprising:

allocating predetermined bandwidth of the local network to a data stream received via a connection of the multiple connections having capacity above a predetermined threshold; and

allocating bandwidth remaining after allocating the predetermined bandwidth to one or more data streams received via connections of the multiple connections of the multiple connections having capacity not above the predetermined threshold.

162.   (New) The method of claim 114, wherein the second network node is configurable as a master node or a network node, the master node controlling bandwidth of the local network for all sources on the local network, the network node controlling bandwidth of the local network for sources connected to the network node but not other sources.